



Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri.



## ECONOMIC IMPACT ANALYSIS ON CONSTRUCTION Miami Bridge Project

The Miami Bridge Project will repair, widen, and also raise the height restriction on the Missouri river bridge near Miami. The project investment will be \$17.6 million dollars and will take approximately one year to complete.

*Over 20 years, every dollar of investment in this project returns:*

- \$0.01 in new net general revenues to the State of Missouri totaling \$0.194 million
- \$0.38 in new personal income to Missourians totaling \$6.8 million
- \$0.36 in new value-added (GSP) to Missouri's economy totaling \$6.4 million
- \$0.58 in new economic activity (output) to Missouri's economy totaling \$10.2 million

*On average each year, the project creates 9 new jobs annually paying an average wage of \$21,555 per job, generates \$9,000 in new net general revenues annually, \$322,000 in new personal income annually, \$302,000 in new value-added to the economy annually, and \$488,000 annually in new economic activity.*

### Location of Miami Bridge Project



#### CUMULATIVE ECONOMIC IMPACT ACROSS MISSOURI

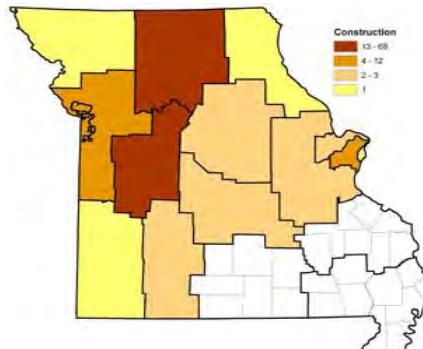
	Benefit Ratio	20-Year Total
CUMULATIVE NET GENERAL REVENUE	0.01 : 1.00	\$0.194 million
CUMULATIVE PERSONAL INCOME	0.38 : 1.00	\$6.758 million
CUMULATIVE VALUE-ADDED / GSP	0.36 : 1.00	\$6.352 million
CUMULATIVE ECONOMIC OUTPUT	0.58 : 1.00	\$10.247 million

#### AVERAGE ANNUAL ECONOMIC IMPACT ACROSS MISSOURI

ANNUAL EMPLOYMENT	9 at average wage of \$21,555
ANNUAL NET GENERAL REVENUE	\$0.009 million
ANNUAL PERSONAL INCOME	\$0.322 million
ANNUAL VALUE-ADDED / GSP	\$0.302 million
ANNUAL ECONOMIC OUTPUT	\$0.488 million

#### CONSTRUCTION PHASE

Average Annual Employment Impact



#### OPERATIONS PHASE

Average Annual Employment Impact



MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT



MISSOURI ECONOMIC RESEARCH & INFORMATION CENTER

## Economic Impact Summary

# Miami Missouri River Bridge Closure

The Miami Bridge is located in North Central Missouri and spans the Missouri River, adjacent to the city of Miami. It connects the northern section of Saline County with the southern section of Carroll County; and connects the southern cities of Marshall and Miami to the northern cities of Brunswick, De Witt, Bosworth, and Carrollton. The bridge is estimated to be closed between August 2009 and August 2010 for repairs, lane expansion, and height extension.

The traffic volume for the Miami Bridge is currently 1,290 vehicles per day, 85% are passenger vehicles and 15% are commercial trucks and buses.

Approximately 85% of the commuters using this bridge are from Carroll and Chariton Counties and 15% are from Saline County. 70% of daily traffic surveyed cites their use of the road as essential for travel between work/school and home.

The highway 65/24 route through Carrollton was found to be the shortest alternative for commuting and trucking detours around the bridge. The Brunswick-Marshall alternative route adds 26 miles to the commute, De Witt-Marshall adds 26 miles, Bosworth-Marshall adds 16 miles and Miami-Carrollton adds 28 miles.

Commuting patterns indicated approximately 82% of the cars would use the Brunswick-Marshall route, 9% De Witt-Marshall route, 2% Bosworth-Marshall route, and 7% Miami-Carrollton route. Commuters taking an alternate route will need to reallocate spending to fuel and maintenance costs for their vehicle over the course of the bridge closure period. The total amount of reallocated spending is estimated at \$1,471,818; \$1,063,461 in added gasoline expenditures and \$408,357 in added vehicle maintenance.

Assuming commercial truck traffic is going through the points of Marshall and Brunswick; alternate routes to these two cities will add an estimated \$2,560,116 in production cost to local industries; \$1,708,288 in added diesel fuel, \$178,498 in added truck maintenance, and \$673,330 in employee compensation.

### Bridge Closure Impacts

Total fiscal impact from commuter spending reallocation and industry production cost increases during the bridge closure period will reduce state general revenue by an estimated \$33,000. Economic impacts include reductions in personal income by \$284,000, Gross State Product by \$461,000, and total economic activity by \$887,000. A loss of 8 jobs is estimated to occur paying an average wage of \$18,550. These impacts would occur primarily in the North Central and West Central regions of Missouri, with some spillover effects throughout the state.

### COMMUTER & INDUSTRY DETOUR IMPACT

NET GENERAL REVENUE	(\$0.033) million
PERSONAL INCOME	(\$0.284) million
VALUE-ADDED / GSP	(\$0.461) million
ECONOMIC OUTPUT	(\$0.887) million

### Sources:

- MoDOT Proposed Miami Bridge Improvements, Results of Traffic Study
- U.S. Census: Local Employment Dynamics
- U.S. Department of Energy, Energy Information Administration, Short- term Energy Outlook July 2008
- Bureau of Labor Statistics: Occupational Employment Survey
- Mapquest.com
- Mountain-Plains Consortium, Truck Costing Model for Transportation Managers
- Transportation Business Associates, Variable Expenses
- AAA, Your Driving Costs 2007
- Economic impact analysis estimated with the REMI-9-Regional Model.



Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri.

# ECONOMIC IMPACT ANALYSIS FOR MISSOURI

Date Completed 22-Jul-08  
 Requested by MODOT

## Miami Bridge Project - Construction Impact

Carroll and Saline County Border

20-YEAR BENEFIT-COST IMPACT		Benefit Ratio	20-Year Sum
NET GENERAL REVENUE	0.01 : 1.00	\$0.194	million
PERSONAL INCOME	0.38 : 1.00	\$6.758	million
VALUE-ADDED / GSP	0.36 : 1.00	\$6.352	million
ECONOMIC OUTPUT	0.58 : 1.00	\$10.247	million

ANNUAL AVERAGE ECONOMIC IMPACT		
9 new JOBS each year paying an avg wage of	\$21,555	
\$0.009 million new NET GENERAL REVENUES each year		
\$0.322 million new PERSONAL INCOME each year		
\$0.302 million new VALUE-ADDED / GSP each year		
\$0.488 million new ECONOMIC OUTPUT each year		

ANNUAL ECONOMIC IMPACTS (2007\$)												
	1-YEAR	2-YEARS	3-YEARS	4-YEARS	5-YEARS	6-YEARS	7-YEARS	8-YEARS	9-YEARS	10-YEARS	11-YEARS	12-YEARS
Employment	0	0	172	2	1	0	(0)	0	(0)	0	0	(0)
Population	0	0	11	10	10	10	8	7	8	6	5	6
Wage and Salary Income	\$0	\$0	\$3,338,770	\$224,630	\$136,549	\$79,723	\$38,828	\$12,616	\$0	(\$11,996)	\$0	\$11,414
Total Personal Income	\$0	\$0	\$4,220,585	\$365,058	\$273,097	\$186,007	\$129,426	\$100,947	\$98,426	\$119,958	\$93,618	\$91,324
Value-Added/Gross State Product	\$0	\$0	\$5,226,947	\$103,847	\$51,929	\$0	(\$34,619)	(\$34,619)	\$34,619	(\$34,619)	\$34,619	\$34,619
Total Economic Output	\$0	\$0	\$9,277,603	\$138,500	\$69,239	\$0	(\$69,239)	(\$103,847)	(\$34,619)	(\$69,239)	\$0	(\$34,619)
ANNUAL FISCAL IMPACTS (2007\$)												
	1-YEAR	2-YEARS	3-YEARS	4-YEARS	5-YEARS	6-YEARS	7-YEARS	8-YEARS	9-YEARS	10-YEARS	11-YEARS	12-YEARS
General Revenues	\$0	\$0	\$232,851	\$8,795	\$7,545	\$6,164	\$4,361	\$4,053	\$4,756	\$3,909	\$5,273	\$4,884
General Expenditures	\$0	\$0	\$91,898	(\$20,340)	(\$19,918)	(\$19,369)	(\$18,640)	(\$17,956)	(\$16,715)	(\$15,019)	(\$13,770)	(\$13,354)
Net General Revenue	\$0	\$0	\$324,749	(\$11,545)	(\$12,373)	(\$13,205)	(\$14,278)	(\$13,904)	(\$11,958)	(\$11,110)	(\$8,497)	(\$8,470)
Project Investment	\$0	\$0	(\$17,600,000)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CUMULATIVE BENEFIT-COST (2007\$)												
	1-YEAR	2-YEARS	3-YEARS	4-YEARS	5-YEARS	6-YEARS	7-YEARS	8-YEARS	9-YEARS	10-YEARS	11-YEARS	12-YEARS
Cumulative Net General Revenues	\$0	\$0	\$324,749	\$313,204	\$300,831	\$287,626	\$273,348	\$259,444	\$247,486	\$236,376	\$227,880	\$219,410
Cumulative General Revenues	\$0	\$0	\$324,749	\$313,204	\$300,831	\$287,626	\$273,348	\$259,444	\$247,486	\$236,376	\$227,880	\$219,410
General Revenue Benefit Ratio	N/A	N/A	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
Cumulative Total Personal Income	\$0	\$0	\$4,220,585	\$4,585,642	\$4,858,740	\$5,044,746	\$5,174,173	\$5,275,120	\$5,373,545	\$5,493,504	\$5,587,122	\$5,678,446
Personal Income Benefit Ratio	N/A	N/A	0.24	0.26	0.28	0.29	0.29	0.30	0.31	0.31	0.32	0.32
Cumulative Gross State Product	\$0	\$0	\$5,226,947	\$5,330,794	\$5,382,723	\$5,382,723	\$5,348,103	\$5,313,484	\$5,348,103	\$5,313,484	\$5,348,103	\$5,382,723
Gross State Product Benefit Ratio	N/A	N/A	0.30	0.30	0.31	0.31	0.30	0.30	0.30	0.30	0.30	0.31
Cumulative Output	\$0	\$0	\$9,277,603	\$9,416,104	\$9,485,343	\$9,485,343	\$9,416,104	\$9,312,257	\$9,277,637	\$9,208,398	\$9,208,398	\$9,173,779
Output Benefit Ratio	N/A	N/A	0.53	0.54	0.54	0.54	0.54	0.53	0.53	0.52	0.52	0.52
Cumulative State Incentives (Cost Factor)	\$0	\$0	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000

### ASSUMPTIONS

Engineering costs of \$1.3 million. Gain of \$1.3 million in Professional Technical Services industry in CY 2009.

Construction costs of \$16.3 million. Gain of \$16.3 million in Construction industry in CY 2009.

Production Cost Impact: Average business production costs savings of 0.0005% per year in CY 2010-2028. Cost savings derived from FHWA production cost factors scaled to current time period, industry mix, type of project, regional output and transportation costs.

Project Investment/Costs: MoDOT costs of \$17.6 million split into 80% federal funds and 20% dedicated general revenue funds.

Impacts occur in North Central and West Central Missouri. Assumptions provided by DED. Estimated using REMI-9-Regional Model (remi-fiscal-9-jun07).

# ECONOMIC IMPACT ANALYSIS FOR MISSOURI

## Miami Bridge Project - Construction Impact

Carroll and Saline County Border

ANNUAL ECONOMIC IMPACTS (2007\$)	13-YEARS	14-YEARS	15-YEARS	16-YEARS	17-YEARS	18-YEARS	19-YEARS	20-YEARS	21-YEARS	22-YEARS	23-YEARS	24-YEARS	25-YEARS
Employment	0	1	1	1	1	1	1	1	2	1	1	0	0
Population	5	6	5	4	4	5	4	4	4	3	3	0	0
Wage and Salary Income	\$0	\$0	\$10,602	\$41,382	\$10,095	\$29,552	\$19,224	\$37,513	\$36,597	\$35,701	\$17,411	\$0	\$0
Total Personal Income	\$44,541	\$86,934	\$127,208	\$103,456	\$121,130	\$118,195	\$115,330	\$93,782	\$109,778	\$89,252	\$69,655	\$0	\$0
Value-Added/Gross State Product	\$34,619	\$34,619	\$69,239	\$69,239	\$103,847	\$103,847	\$103,847	\$69,239	\$103,847	\$103,847	\$173,097	\$0	\$0
Total Economic Output	\$0	\$34,619	\$138,500	\$69,239	\$69,239	\$69,239	\$69,239	\$138,500	\$207,694	\$138,500	\$138,500	\$0	\$0
ANNUAL FISCAL IMPACTS (2007\$)	13-YEARS	14-YEARS	15-YEARS	16-YEARS	17-YEARS	18-YEARS	19-YEARS	20-YEARS	21-YEARS	22-YEARS	23-YEARS	24-YEARS	25-YEARS
General Revenues	\$4,379	\$5,497	\$7,174	\$6,119	\$7,568	\$6,851	\$7,382	\$8,251	\$7,270	\$6,699	\$7,325	\$0	\$0
General Expenditures	(\$12,751)	(\$11,132)	(\$10,556)	(\$10,617)	(\$9,113)	(\$9,076)	(\$8,195)	(\$7,619)	(\$7,440)	(\$6,533)	(\$6,591)	\$0	\$0
Net General Revenue	(\$8,372)	(\$5,635)	(\$3,382)	(\$4,498)	(\$1,544)	(\$2,225)	(\$813)	\$633	(\$170)	\$167	\$734	\$0	\$0
Project Investment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CUMULATIVE BENEFIT-COST (2007\$)	13-YEARS	14-YEARS	15-YEARS	16-YEARS	17-YEARS	18-YEARS	19-YEARS	20-YEARS	21-YEARS	22-YEARS	23-YEARS	24-YEARS	25-YEARS
Cumulative Net General Revenues	\$211,037	\$205,402	\$202,020	\$197,522	\$195,978	\$193,753	\$192,940	\$193,573	\$193,402	\$193,569	\$194,303	\$194,303	\$194,303
Cumulative General Revenues	\$211,037	\$205,402	\$202,020	\$197,522	\$195,978	\$193,753	\$192,940	\$193,573	\$193,402	\$193,569	\$194,303	\$194,303	\$194,303
Net General Revenue Benefit Ratio	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cumulative Total Personal Income	\$5,722,987	\$5,809,921	\$5,937,129	\$6,040,585	\$6,161,715	\$6,279,910	\$6,395,240	\$6,489,022	\$6,598,800	\$6,688,052	\$6,757,707	\$6,757,707	\$6,757,707
Personal Income Benefit Ratio	0.33	0.33	0.34	0.34	0.35	0.36	0.36	0.37	0.37	0.38	0.38	0.38	0.38
Cumulative Gross State Product	\$5,417,342	\$5,451,962	\$5,521,201	\$5,590,439	\$5,694,286	\$5,798,133	\$5,901,980	\$5,971,219	\$6,075,066	\$6,178,913	\$6,352,011	\$6,352,011	\$6,352,011
Gross State Product Benefit Ratio	0.31	0.31	0.31	0.32	0.32	0.33	0.34	0.34	0.35	0.35	0.36	0.36	0.36
Cumulative Output	\$9,173,779	\$9,208,398	\$9,346,899	\$9,416,138	\$9,485,377	\$9,554,616	\$9,623,854	\$9,762,355	\$9,970,049	\$10,108,549	\$10,247,050	\$10,247,050	\$10,247,050
Output Benefit Ratio	0.52	0.52	0.53	0.54	0.54	0.54	0.55	0.55	0.57	0.57	0.58	0.58	0.58
Cumulative State Incentives (Cost Factor)	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000	\$17,600,000

# ECONOMIC IMPACT ANALYSIS FOR MISSOURI

Date Completed 22-Jul-08  
 Requested by MoDOT DED

## Miami Bridge Closure

North Central and West Central Missouri

### 2-YEAR ECONOMIC IMPACT

	2-Year Sum
NET GENERAL REVENUE	(\$0.033) million
PERSONAL INCOME	(\$0.284) million
VALUE-ADDED / GSP	(\$0.461) million
ECONOMIC OUTPUT	(\$0.887) million

### ANNUAL AVERAGE ECONOMIC IMPACT

(8) new JOBS each year paying an avg wage of \$18,550  
 (\$0.016) million new NET GENERAL REVENUES each year  
 (\$0.142) million new PERSONAL INCOME each year  
 (\$0.231) million new VALUE-ADDED / GSP each year  
 (\$0.443) million new ECONOMIC OUTPUT each year

ANNUAL ECONOMIC IMPACTS (2008\$)	1-YEAR	2-YEARS	3-YEARS	4-YEARS	5-YEARS	6-YEARS	7-YEARS	8-YEARS	9-YEARS	10-YEARS	11-YEARS	12-YEARS
Employment	(5)	(11)	0	0	0	0	0	0	0	0	0	0
Population	(1)	(1)	0	0	0	0	0	0	0	0	0	0
Wage and Salary Income	(\$91,550)	(\$207,350)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Personal Income	(\$76,290)	(\$207,350)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Value-Added/Gross State Product	(\$124,160)	(\$337,023)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Economic Output	(\$248,321)	(\$638,589)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

ANNUAL FISCAL IMPACTS (2008\$)	1-YEAR	2-YEARS	3-YEARS	4-YEARS	5-YEARS	6-YEARS	7-YEARS	8-YEARS	9-YEARS	10-YEARS	11-YEARS	12-YEARS
General Revenues	(\$8,254)	(\$17,168)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
General Expenditures	(\$2,456)	(\$4,784)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
State Incentives	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net General Revenues	(\$10,710)	(\$21,952)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

CUMULATIVE BENEFIT-COST (2008\$)	1-YEAR	2-YEARS	3-YEARS	4-YEARS	5-YEARS	6-YEARS	7-YEARS	8-YEARS	9-YEARS	10-YEARS	11-YEARS	12-YEARS
Cumulative Net General Revenues	(\$10,710)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)
Cumulative General Revenues	(\$10,710)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)	(\$32,662)
General Revenue Benefit Ratio	N/A											
Cumulative Total Personal Income	(\$76,290)	(\$283,640)	(\$283,640)	(\$283,640)	(\$283,640)	(\$283,640)	(\$283,640)	(\$283,640)	(\$283,640)	(\$283,640)	(\$283,640)	(\$283,640)
Personal Income Benefit Ratio	N/A											
Cumulative Gross State Product	(\$124,160)	(\$461,184)	(\$461,184)	(\$461,184)	(\$461,184)	(\$461,184)	(\$461,184)	(\$461,184)	(\$461,184)	(\$461,184)	(\$461,184)	(\$461,184)
Gross State Product Benefit Ratio	N/A											
Cumulative Output	(\$248,321)	(\$886,909)	(\$886,909)	(\$886,909)	(\$886,909)	(\$886,909)	(\$886,909)	(\$886,909)	(\$886,909)	(\$886,909)	(\$886,909)	(\$886,909)
Output Benefit Ratio	N/A											
Cumulative State Incentives (Cost Factor)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

### ASSUMPTIONS

Investment: (a) n/a

Employment: (a) n/a

Other Assumptions: (a) \$2,560,116 in added production costs to the trucking industry; (b) \$1,471,818 in reallocated consumer spending; \$1,063,461 in added gasoline spending and \$408,357 in added automotive maintenance.

Incentives/Credits: (a) \$ in GR.

Impacts occur in the North Central and West Central Region. Assumptions provided by DED. Estimated using REMI-9-Regional Model (remi-fiscal-9-jul07).